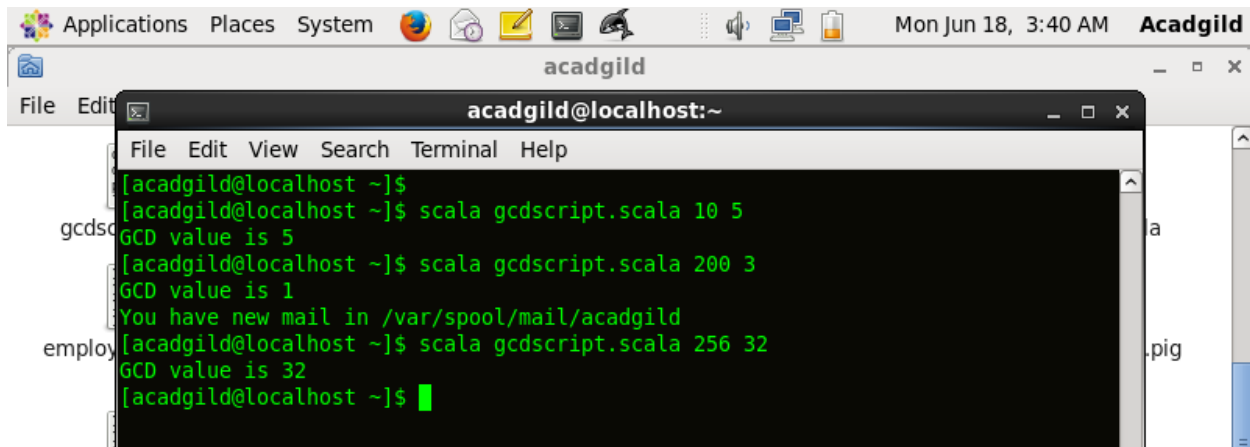


Output of gcd:

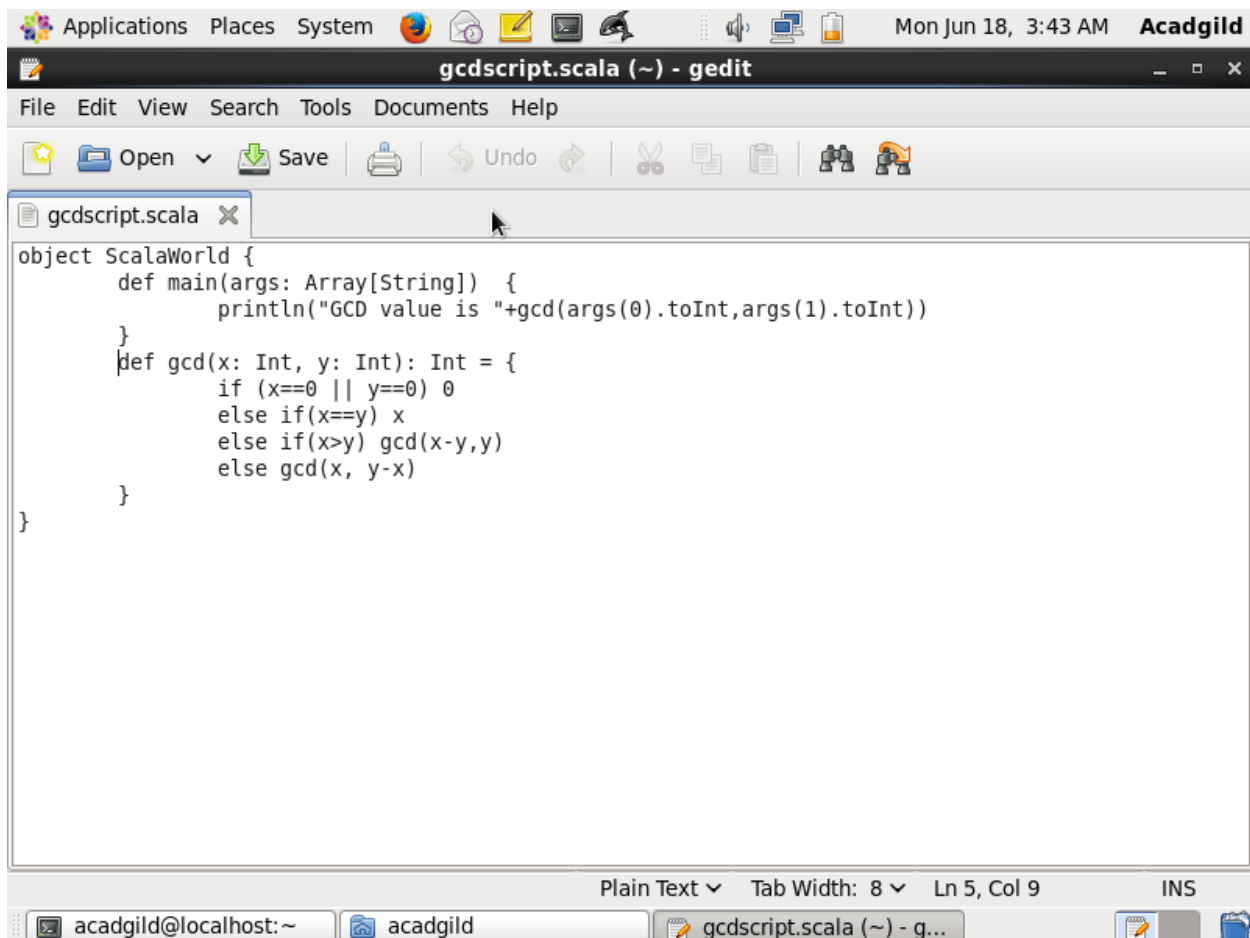
Passing parameterized values in main function for gcd



A terminal window titled 'acadgild@localhost:~' is open within a desktop environment. The window shows the execution of a Scala script named 'gcdscript.scala'. The user enters the command 'scala gcdscript.scala 10 5', which outputs 'GCD value is 5'. Then, the user enters 'scala gcdscript.scala 200 3', which outputs 'GCD value is 1'. Finally, the user enters 'scala gcdscript.scala 256 32', which outputs 'GCD value is 32'. The terminal also shows a notification about new mail in the background.

```
[acadgild@localhost ~]$  
[acadgild@localhost ~]$ scala gcdscript.scala 10 5  
GCD value is 5  
[acadgild@localhost ~]$ scala gcdscript.scala 200 3  
GCD value is 1  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ scala gcdscript.scala 256 32  
GCD value is 32  
[acadgild@localhost ~]$
```

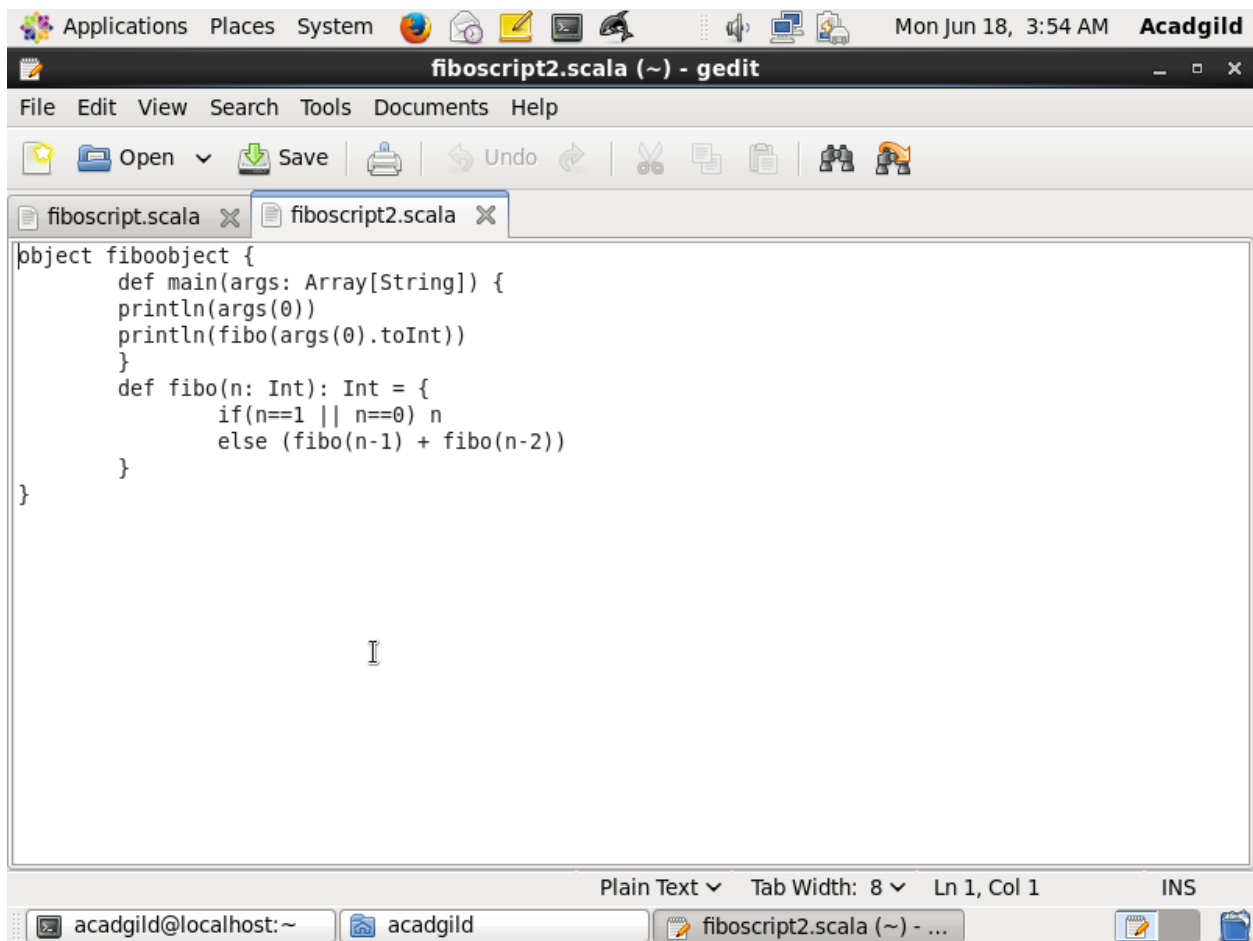
Gcd code :



A Gedit window titled 'gcdscript.scala (~) - gedit' is open, showing the source code of the 'gcdscript.scala' file. The code defines a 'main' function that takes an array of strings and prints the GCD value. It also defines a 'gcd' function that takes two integers and returns their GCD using a recursive algorithm. The code is as follows:

```
object ScalaWorld {  
  def main(args: Array[String]) {  
    println("GCD value is "+gcd(args(0).toInt,args(1).toInt))  
  }  
  def gcd(x: Int, y: Int): Int = {  
    if (x==0 || y==0) 0  
    else if(x==y) x  
    else if(x>y) gcd(x-y,y)  
    else gcd(x, y-x)  
  }  
}
```

Code for fibonacci using recursion :

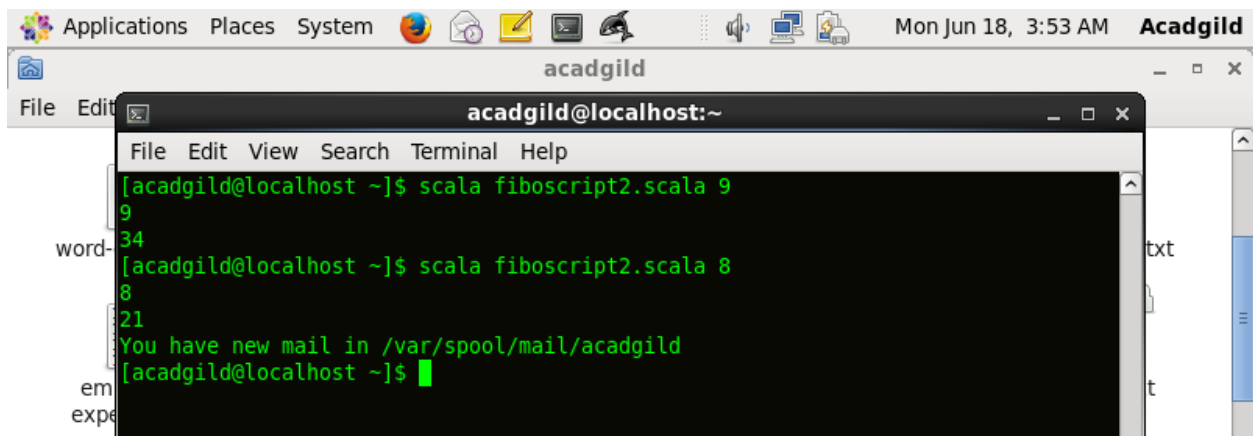


The screenshot shows a gedit editor window titled "fiboscript2.scala (~) - gedit". The code inside is as follows:

```
object fiboobject {  
  def main(args: Array[String]) {  
    println(args(0))  
    println(fibo(args(0).toInt))  
  }  
  def fibo(n: Int): Int = {  
    if(n==1 || n==0) n  
    else (fibo(n-1) + fibo(n-2))  
  }  
}
```

The status bar at the bottom indicates "Plain Text", "Tab Width: 8", "Ln 1, Col 1", and "INS". The taskbar at the top shows the date and time as "Mon Jun 18, 3:54 AM" and the username "Acadgild".

Output:

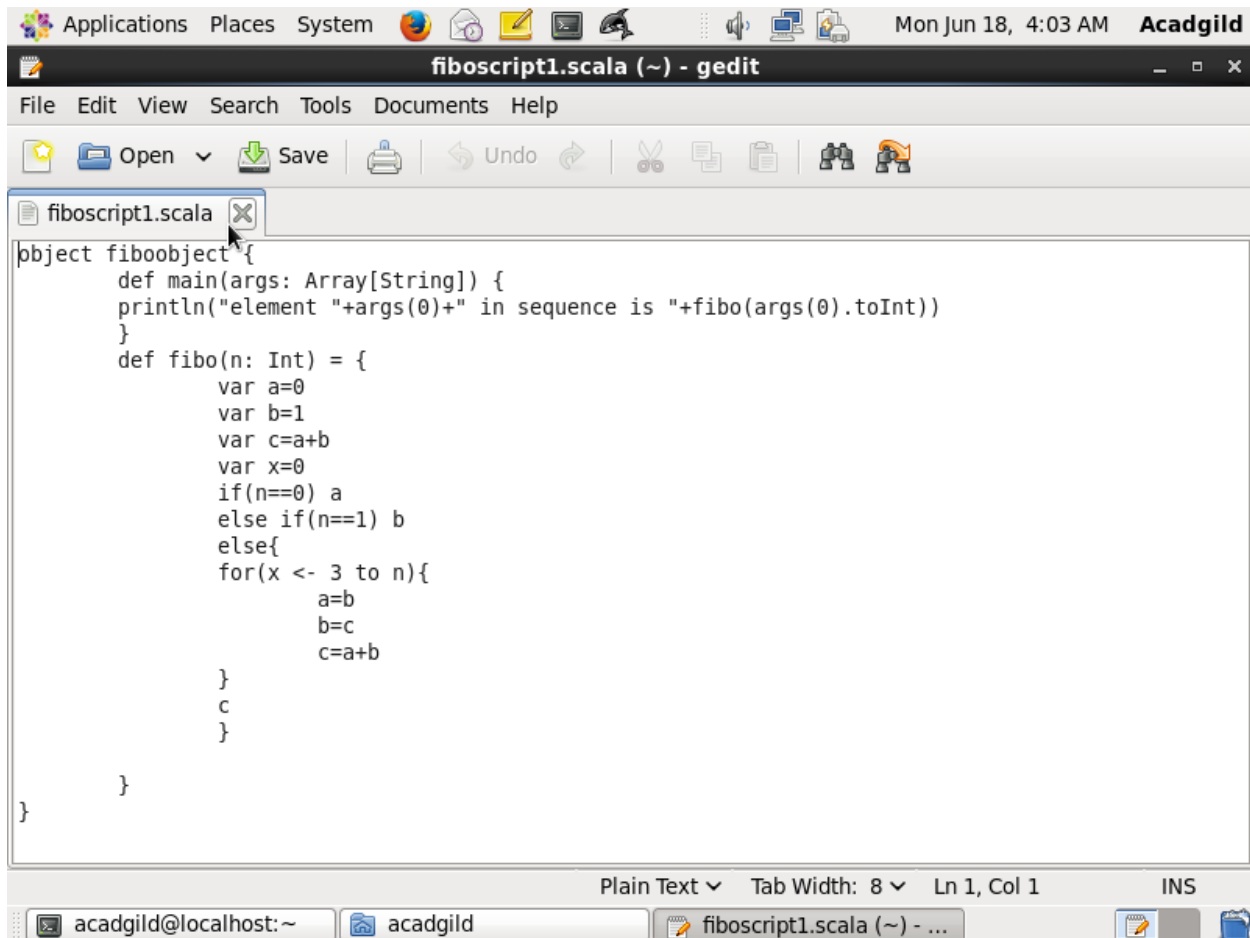


The screenshot shows a terminal window titled "acadgild@localhost:~". The output of the program is as follows:

```
[acadgild@localhost ~]$ scala fiboscript2.scala 9  
9  
34  
[acadgild@localhost ~]$ scala fiboscript2.scala 8  
8  
21  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$
```

The terminal window is overlaid on a desktop environment with a taskbar at the top showing the date and time as "Mon Jun 18, 3:53 AM" and the username "Acadgild".

Code for Fibonacci using for loop:

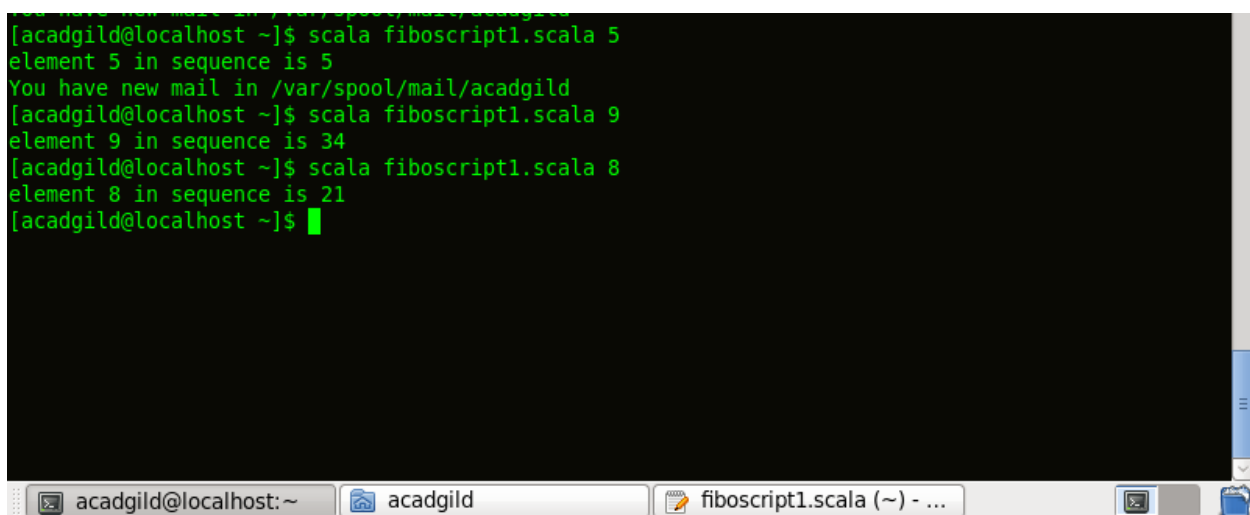


The screenshot shows a gedit editor window titled "fiboscript1.scala (~) - gedit". The code is as follows:

```
object fiboobject {  
  def main(args: Array[String]) {  
    println("element "+args(0)+" in sequence is "+fibo(args(0).toInt))  
  }  
  def fibo(n: Int) = {  
    var a=0  
    var b=1  
    var c=a+b  
    var x=0  
    if(n==0) a  
    else if(n==1) b  
    else {  
      for(x <- 3 to n){  
        a=b  
        b=c  
        c=a+b  
      }  
      c  
    }  
  }  
}
```

The status bar at the bottom indicates "Plain Text", "Tab Width: 8", "Ln 1, Col 1", and "INS".

Output of Fibonacci using for loop:

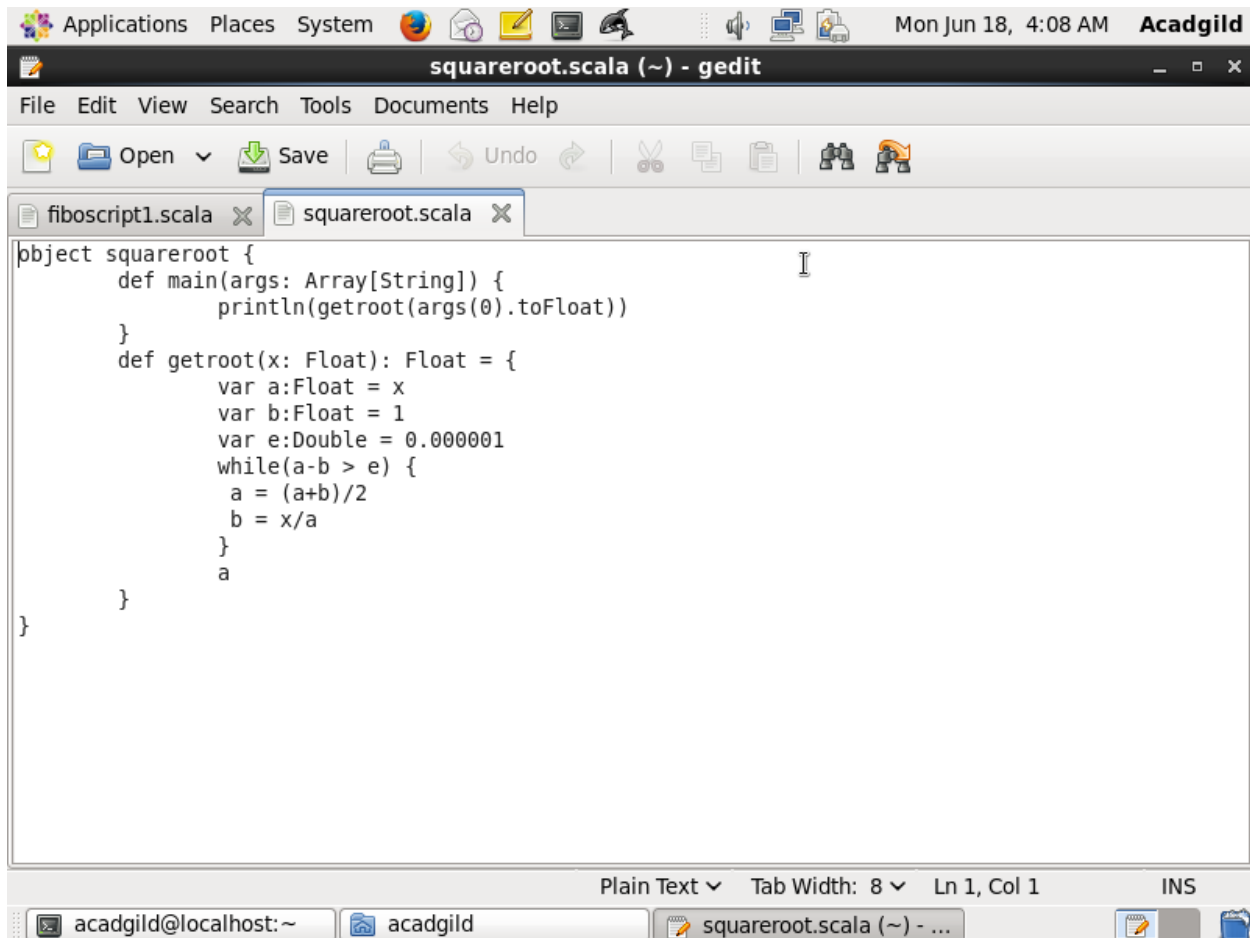


The screenshot shows a terminal window with the following output:

```
[acadgild@localhost ~]$ scala fiboscript1.scala 5  
element 5 in sequence is 5  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ scala fiboscript1.scala 9  
element 9 in sequence is 34  
[acadgild@localhost ~]$ scala fiboscript1.scala 8  
element 8 in sequence is 21  
[acadgild@localhost ~]$
```

The terminal window has a taskbar at the bottom with the same icons as the gedit window.

Code to find square root :

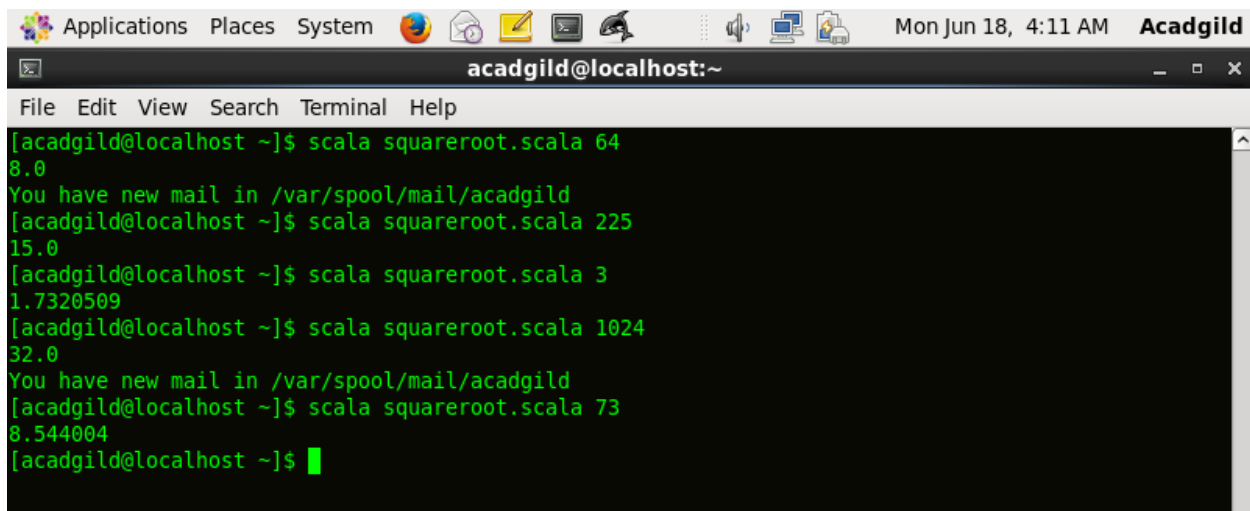


The screenshot shows a gedit editor window titled "squareroot.scala (~) - gedit". The menu bar includes File, Edit, View, Search, Tools, Documents, and Help. The toolbar has icons for Open, Save, Print, Undo, Redo, Cut, Copy, Paste, and Run. The editor has two tabs: "fiboscript1.scala" and "squareroot.scala". The code in "squareroot.scala" is as follows:

```
object squareroot {  
  def main(args: Array[String]) {  
    println(getroot(args(0).toFloat))  
  }  
  def getroot(x: Float): Float = {  
    var a:Float = x  
    var b:Float = 1  
    var e:Double = 0.000001  
    while(a-b > e) {  
      a = (a+b)/2  
      b = x/a  
    }  
    a  
  }  
}
```

The status bar at the bottom indicates "Plain Text", "Tab Width: 8", "Ln 1, Col 1", and "INS". The taskbar at the bottom shows the user "acadgild@localhost:~" and the file "squareroot.scala (~) - ...".

Output :



The screenshot shows a terminal window titled "acadgild@localhost:~". The menu bar includes File, Edit, View, Search, Terminal, and Help. The terminal output is as follows:

```
[acadgild@localhost ~]$ scala squareroot.scala 64  
8.0  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ scala squareroot.scala 225  
15.0  
[acadgild@localhost ~]$ scala squareroot.scala 3  
1.7320509  
[acadgild@localhost ~]$ scala squareroot.scala 1024  
32.0  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ scala squareroot.scala 73  
8.544004  
[acadgild@localhost ~]$
```